



Docket No.: M4065.0466/P466  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Neal Rueger

Application No.: 09/938,644

Confirmation No.:

Filed: August 27, 2001

Art Unit: 1765

For: METHOD AND APPARATUS FOR  
MICROMACHINING USING A  
MAGNETIC FIELD AND PLASMA  
ETCHING

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Examiner: T. Mackey

**INFORMATION DISCLOSURE STATEMENT (IDS)**

MS RCE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(a) exists. In accordance with 37 C.F.R. § 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 C.F.R. §1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1073, under Order No. M4065.0466/P466. A duplicate copy of this paper is enclosed.

Dated: March 2, 2004

Respectfully submitted,

By 

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PTO/SB/08a/b (08-03)

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Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	09/938,644-Conf. #1172
				Filing Date	August 27, 2001
				First Named Inventor	Neal Rueger
				Art Unit	1765
				Examiner Name	T. Mackey
Sheet	1	of	2	Attorney Docket Number	M4065.0466/P466

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	A	5,976,347	11/1999	Wakabayashi et al.	
	B	6,103,399	8/2000	Smela et al.	
	C	5,972,193	10/1999	Chou et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	MM-DD-YYYY			

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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C1	MARC SCHAEPKENS et al.; "Asymmetric microtrenching during inductively coupled plasma oxide etching in the presence of a weak magnetic field", Applied Physics Letters, Vol. 72, Number 11, March 16, 1998.	
	C2	K. DONOHOE; "Aspect Ratio-Plasma Effects" March 14, 2000.	
	C3	"Introduction to Microengineering, Mask Design", <a href="http://www.dbanks.demon.co.uk/ueng/maskdes.html">http://www.dbanks.demon.co.uk/ueng/maskdes.html</a> accessed July 3, 2001.	
	C4	"Introduction to Microengineering, LIGA", <a href="http://www.dbanks.demon.co.uk/ueng/liga.html">http://www.dbanks.demon.co.uk/ueng/liga.html</a> accessed July 3, 2001.	
	C5	"Introduction to Microengineering, Excimer laser micromachining", <a href="http://www.dbanks.demon.co.uk/ueng/excimerum.html">http://www.dbanks.demon.co.uk/ueng/excimerum.html</a> accessed July 3, 2001.	
	C6	"Introduction to Microengineering, Wafer bonding", <a href="http://www.dbanks.demon.co.uk/ueng/waferbond.html">http://www.dbanks.demon.co.uk/ueng/waferbond.html</a> accessed July 3, 2001.	
	C7	"Introduction to Microengineering, Electrochemical etching of silicon", <a href="http://www.dbanks.demon.co.uk/ueng/electrochem.html">http://www.dbanks.demon.co.uk/ueng/electrochem.html</a> accessed July 3, 2001.	
	C8	"Introduction to Microengineering, Surface micromachining", <a href="http://www.dbanks.demon.co.uk/ueng/surfum.html">http://www.dbanks.demon.co.uk/ueng/surfum.html</a> accessed July 3, 2001.	
	C9	"Introduction to Microengineering, Basic Structures", <a href="http://www.dbanks.demon.co.uk/ueng/sistruct.html">http://www.dbanks.demon.co.uk/ueng/sistruct.html</a> accessed July 3, 2001.	
	C10	"Introduction to Microengineering, Lift off", <a href="http://www.dbanks.demon.co.uk/ueng/liftoff.html">http://www.dbanks.demon.co.uk/ueng/liftoff.html</a> accessed July 3, 2001.	
	C11	"Introduction to Microengineering, Dry Etching", <a href="http://www.dbanks.demon.co.uk/ueng/dryetch.html">http://www.dbanks.demon.co.uk/ueng/dryetch.html</a> accessed July 3, 2001.	
	C12	"Introduction to Microengineering, Wet etching", <a href="http://www.dbanks.demon.co.uk/ueng/wetetch.html">http://www.dbanks.demon.co.uk/ueng/wetetch.html</a> accessed July 3, 2001.	
	C13	"Introduction to Microengineering, Thin films", <a href="http://www.dbanks.demon.co.uk/ueng/Thinfilms.html">http://www.dbanks.demon.co.uk/ueng/Thinfilms.html</a> accessed July 3, 2001.	



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	C14	"Introduction to Microengineering, Basic techniques", <a href="http://www.dbanks.demon.co.uk/ueng/sitech.html">http://www.dbanks.demon.co.uk/ueng/sitech.html</a> accessed July 3, 2001.	
	C15	"Integrated MicroElectroMechanical Systems", <a href="http://www.mdl.sandia.gov/micromachine/integrated.html">http://www.mdl.sandia.gov/micromachine/integrated.html</a> accessed July 3, 2001.	
	C16	"Summit Technology", <a href="http://www.mdl.sandia.gov/micromachine/trilevel.html">http://www.mdl.sandia.gov/micromachine/trilevel.html</a> accessed July 3, 2001.	
	C17	"MEMS Overview", <a href="http://www.mdl.sandia.gov/micromachine/overview.html">http://www.mdl.sandia.gov/micromachine/overview.html</a> accessed July 3, 2001.	
	C18	"Vision for MEMS", <a href="http://www.mdl.sandia.gov/micromachine/vision.html">http://www.mdl.sandia.gov/micromachine/vision.html</a> accessed July 3, 2001.	
	C19	PHILIP BALL; "Honey, I shrunk the cogs", <a href="http://www.nature.com/nsu/010111/010111-3.html">http://www.nature.com/nsu/010111/010111-3.html</a> July 12, 2001.	

Examiner Signature		Date Considered	
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